FIG.1A

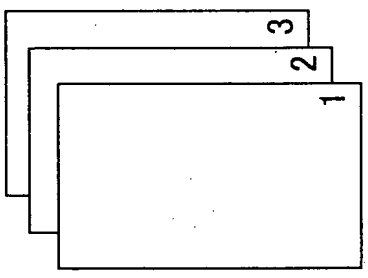


FIG.1B

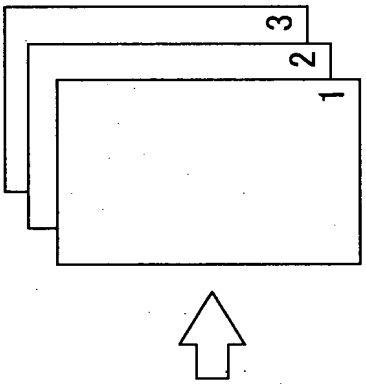


FIG.1C

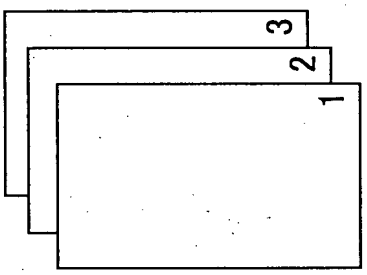


FIG.1D

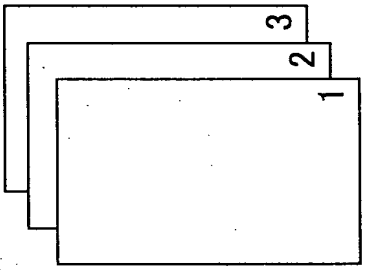


FIG.2

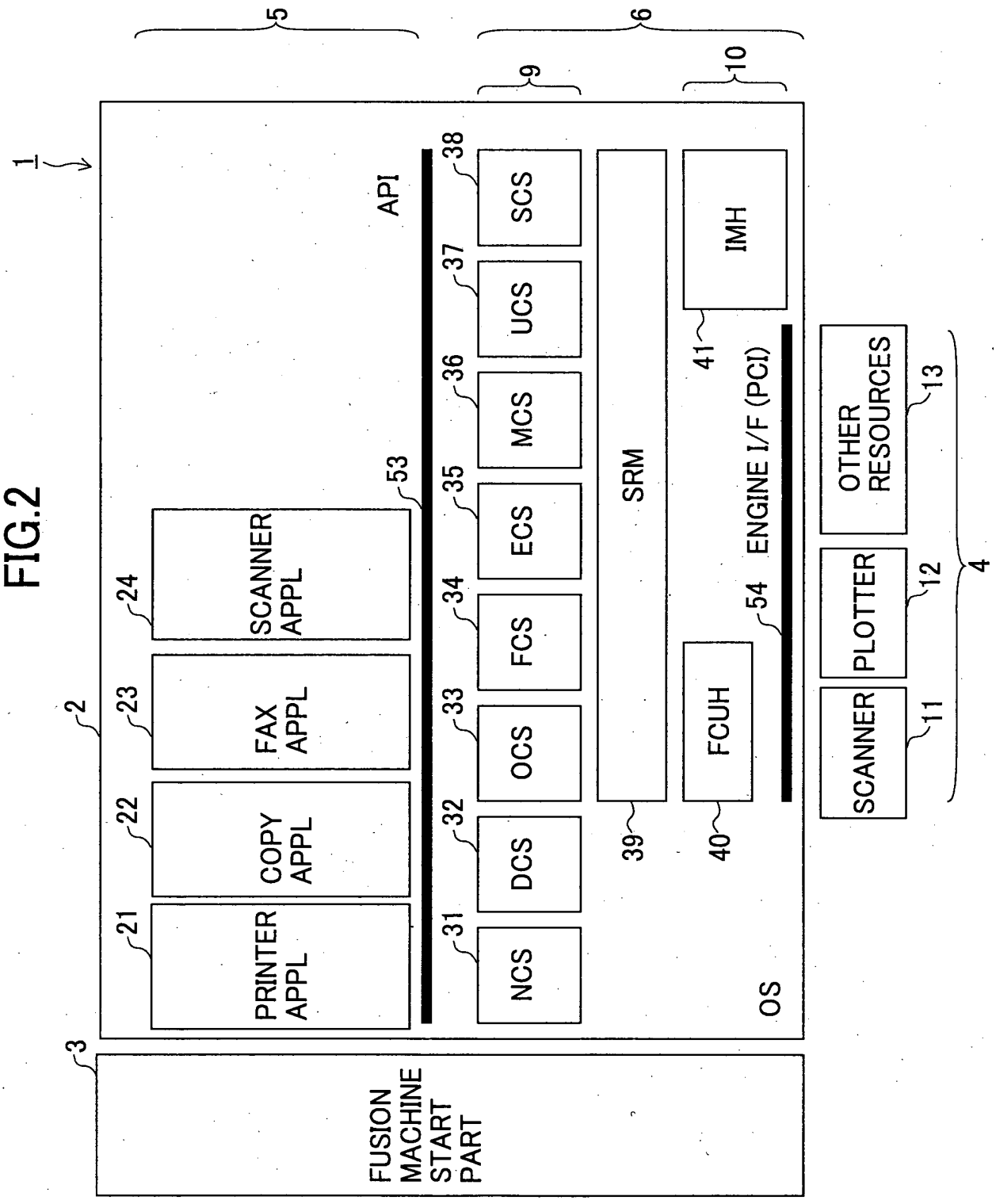

1
5
6
9
10
API
SCS
UCS
MCS
ECS
FCS
OCS
DCS
NCS
SRM
IMH
ENGINE I/F (PCI)
OS
SCANNER APPL
FAX APPL
COPY APPL
PRINTER APPL
FCUH
OTHER RESOURCES
PLOTTER
SCANNER
FUSION MACHINE START PART
2
3
4
11
12
13
21
22
23
24
31
32
33
34
35
36
37
38
39
40
41
53
54

FIG.3

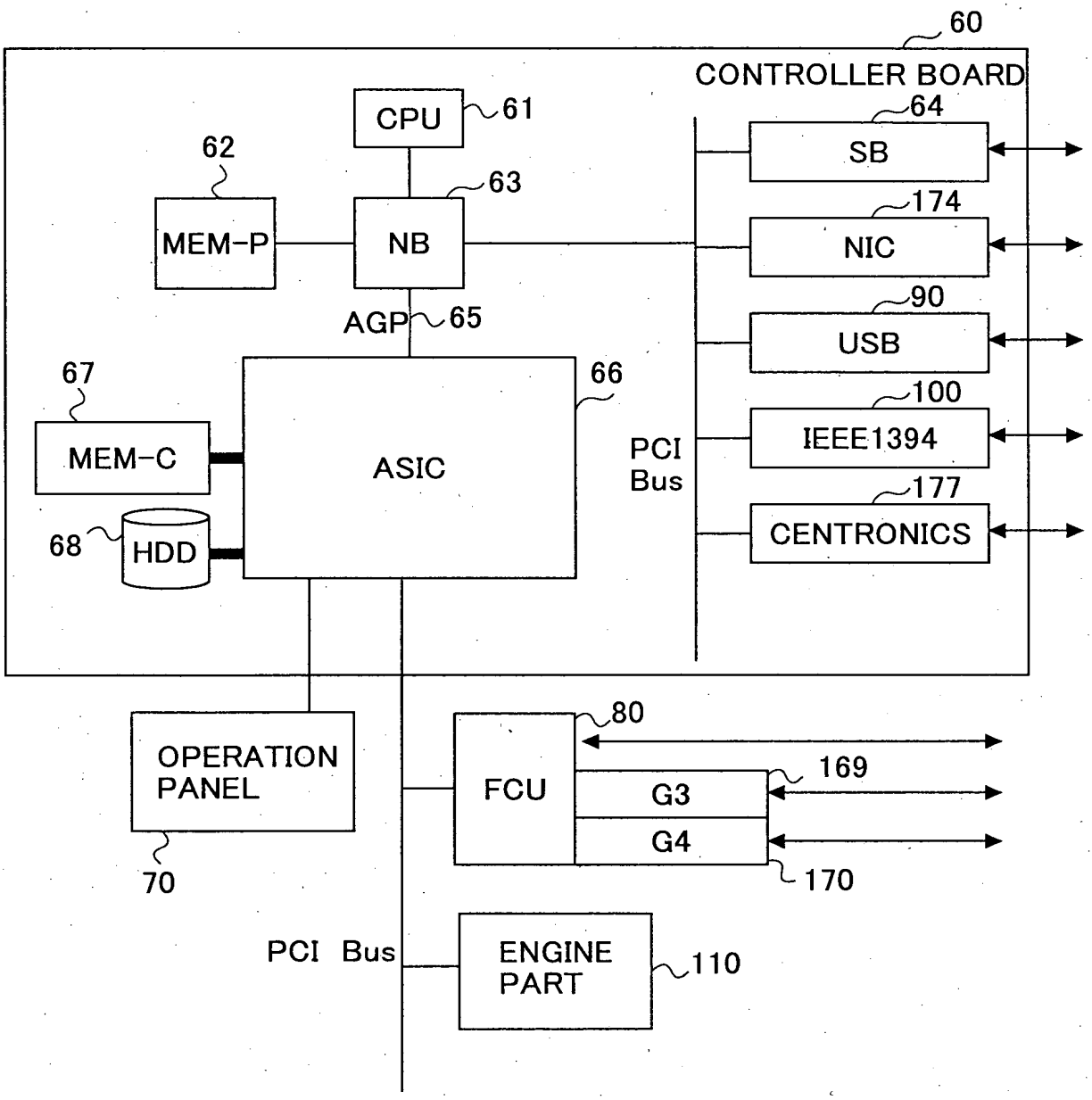

60
CONTROLLER BOARD
CPU
61
62
63
64
SB
MEM-P
NB
174
NIC
AGP
65
90
USB
67
66
100
MEM-C
ASIC
PCI
Bus
IEEE1394
177
68
HDD
CENTRONICS
OPERATION
PANEL
80
FCU
169
G3
G4
70
170
PCI Bus
ENGINE
PART
110

FIG.4

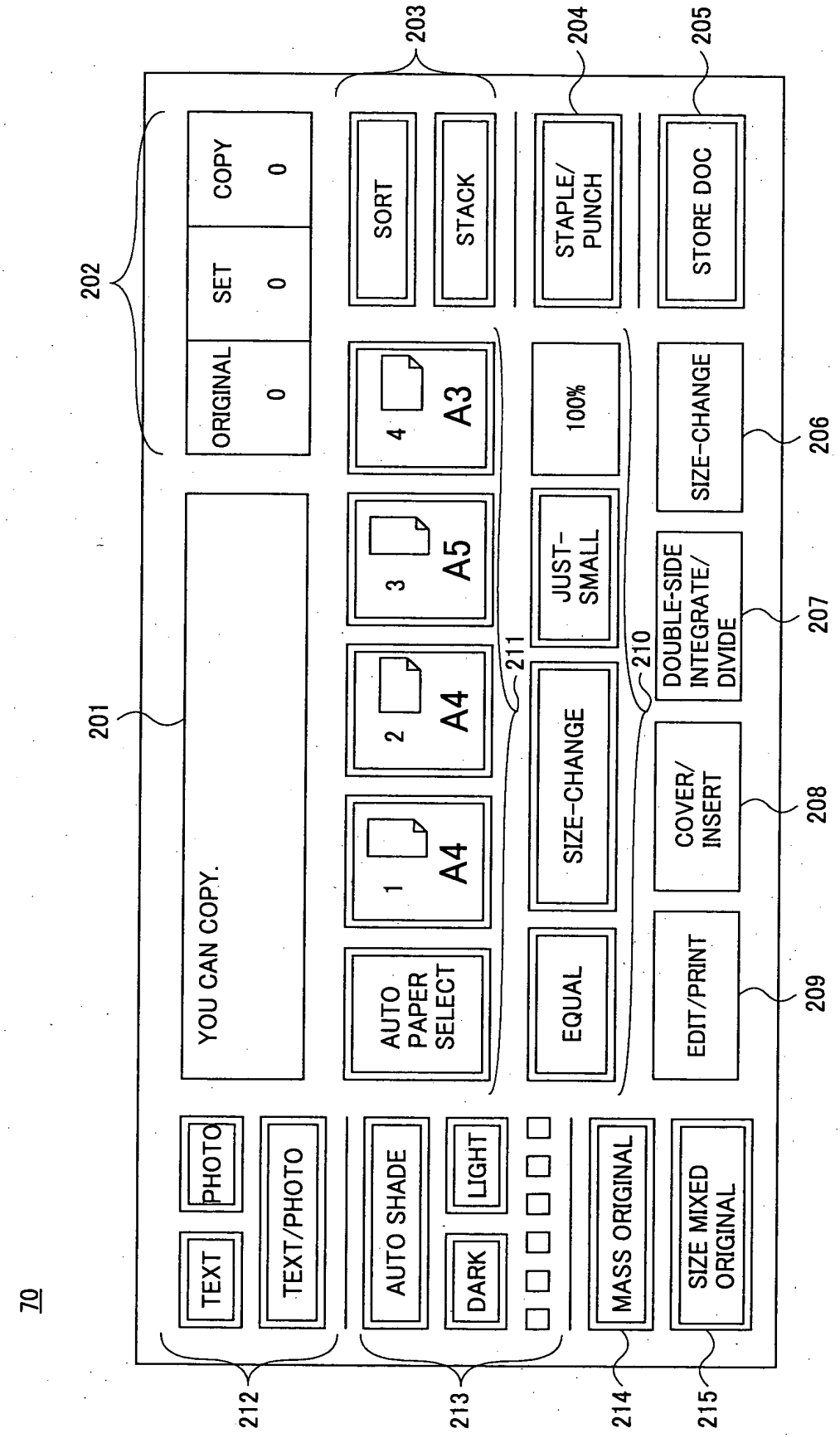

70
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
YOU CAN COPY.
ORIGINAL
SET
COPY
0
0
0
AUTO PAPER SELECT
1
A4
2
A4
3
A5
4
A3
EQUAL
SIZE-CHANGE
JUST-SMALL
100%
SORT
STACK
STAPLE/PUNCH
STORE DOC
SIZE-CHANGE
DOUBLE-SIDE INTEGRATE/DIVIDE
COVER/INSERT
EDIT/PRINT
TEXT
PHOTO
TEXT/PHOTO
AUTO SHADE
DARK
LIGHT
MASS ORIGINAL
SIZE MIXED ORIGINAL

FIG.5

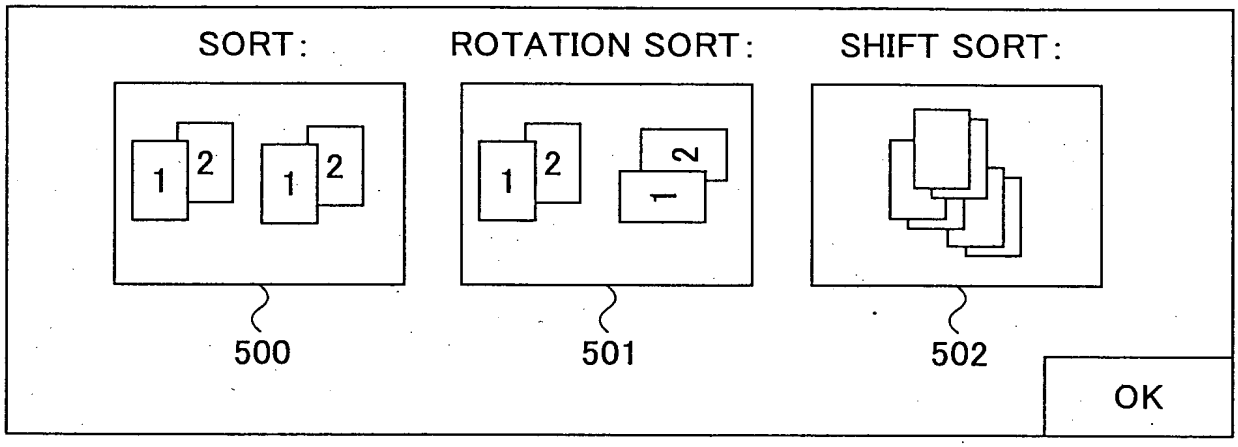


FIG.6D

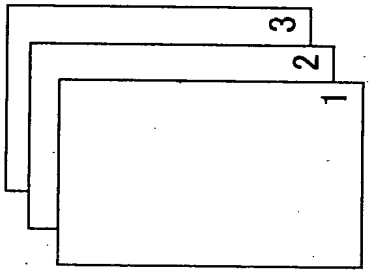


FIG.6C

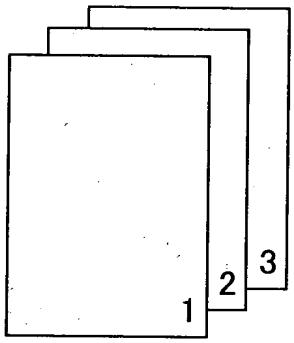


FIG.6B

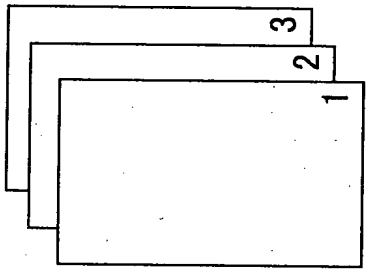


FIG.6A

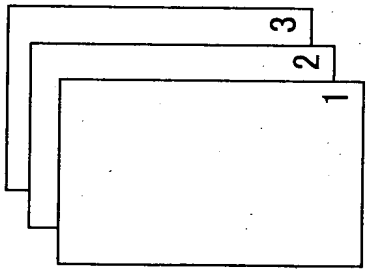


FIG.7A

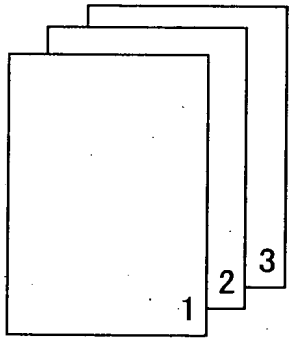


FIG.7B

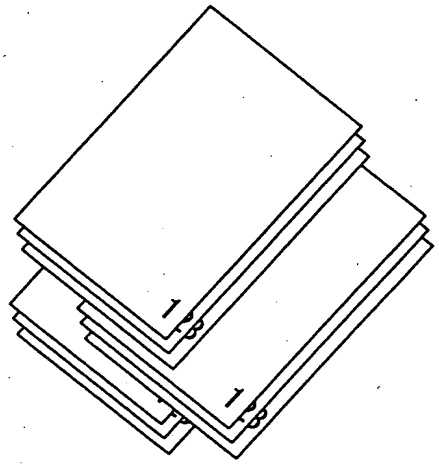
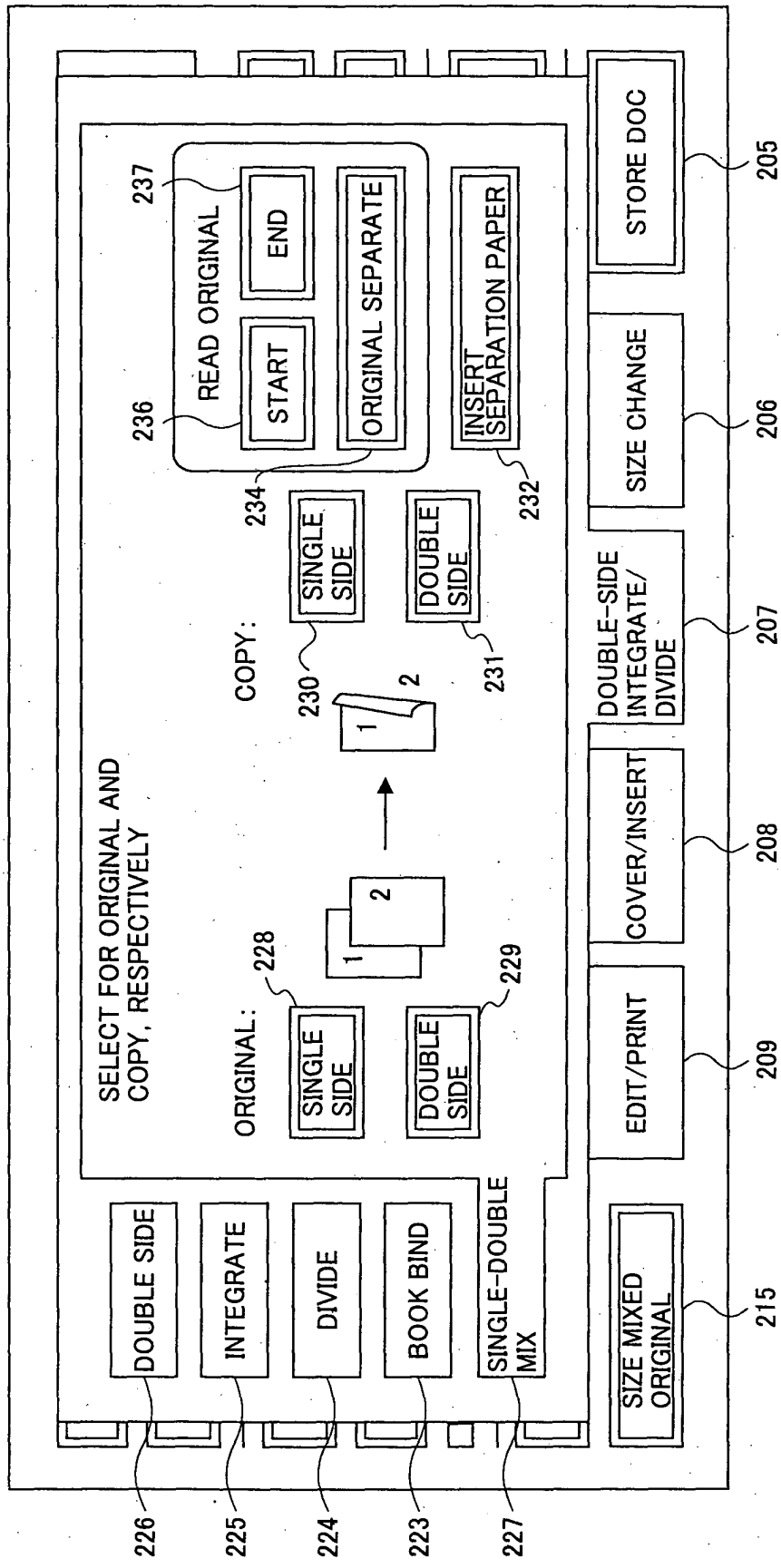


FIG.8


70
SELECT FOR ORIGINAL AND COPY, RESPECTIVELY
ORIGINAL:
SINGLE SIDE
DOUBLE SIDE
228
229
COPY:
SINGLE SIDE
DOUBLE SIDE
230
231
234
READ ORIGINAL
START
END
236
237
ORIGINAL SEPARATE
INSERT SEPARATION PAPER
232
STORE DOC
205
SIZE CHANGE
206
DOUBLE-SIDE INTEGRATE/ DIVIDE
207
COVER/INSERT
208
EDIT/PRINT
209
SIZE MIXED ORIGINAL
215
DOUBLE SIDE
INTEGRATE
DIVIDE
BOOK BIND
SINGLE-DOUBLE MIX
226
225
224
223
227

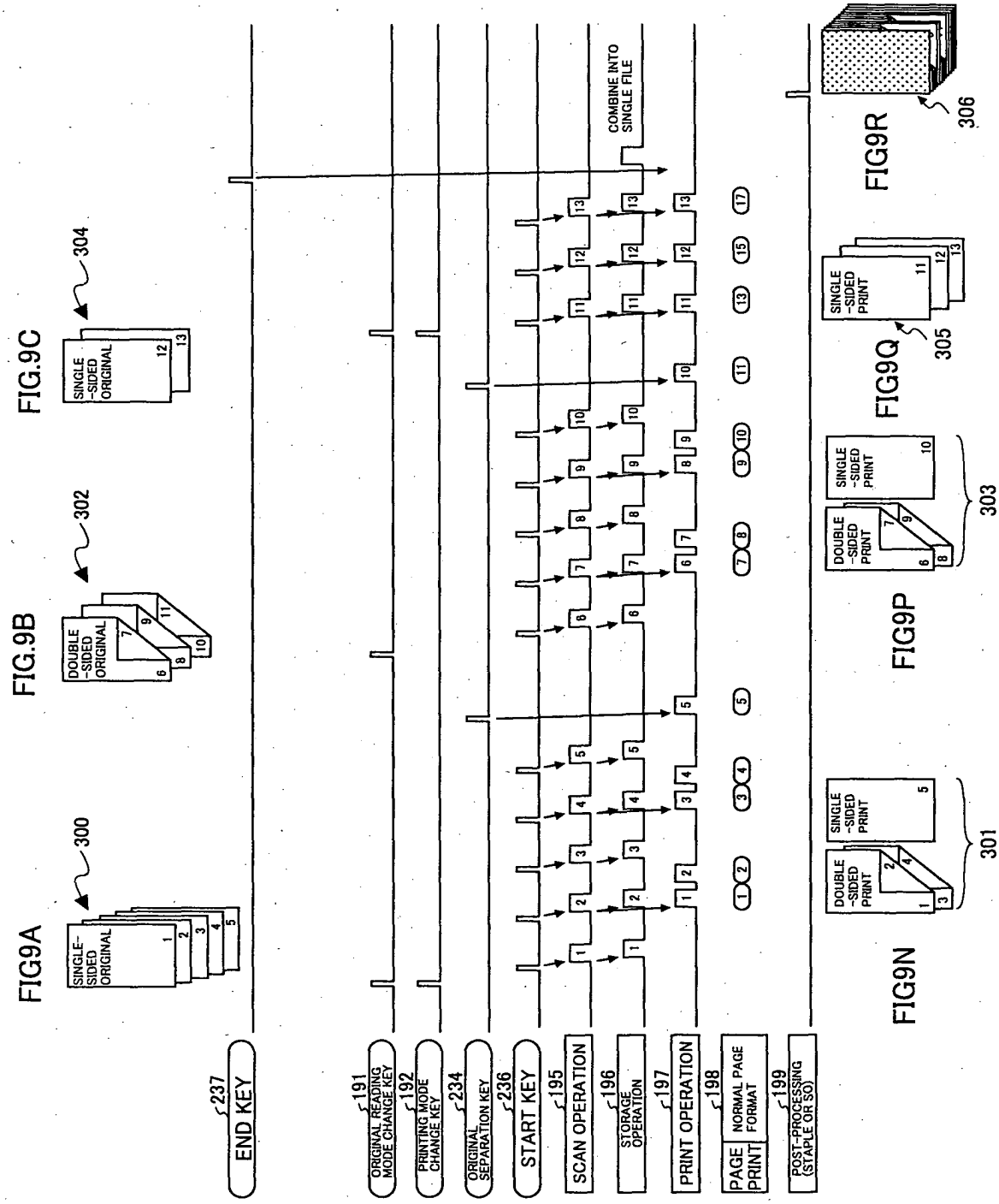


FIG9A
FIG.9B
FIG.9C
300
302
304
SINGLE-SIDED ORIGINAL
DOUBLE-SIDED ORIGINAL
SINGLE-SIDED ORIGINAL
FIG9D
END KEY
237
FIG9E
ORIGINAL READING MODE CHANGE KEY
191
FIG9F
PRINTING MODE CHANGE KEY
192
FIG9G
ORIGINAL SEPARATION KEY
234
FIG9H
START KEY
236
FIG9I
SCAN OPERATION
195
FIG9J
STORAGE OPERATION
196
FIG9K
PRINT OPERATION
197
FIG9L
PAGE PRINT
NORMAL PAGE FORMAT
198
FIG9M
POST-PROCESSING (STAPLE OR SO)
199
COMBINE INTO SINGLE FILE
FIG9N
DOUBLE-SIDED PRINT
SINGLE-SIDED PRINT
301
FIG9P
DOUBLE-SIDED PRINT
SINGLE-SIDED PRINT
303
FIG9Q
SINGLE-SIDED PRINT
305
FIG9R
306

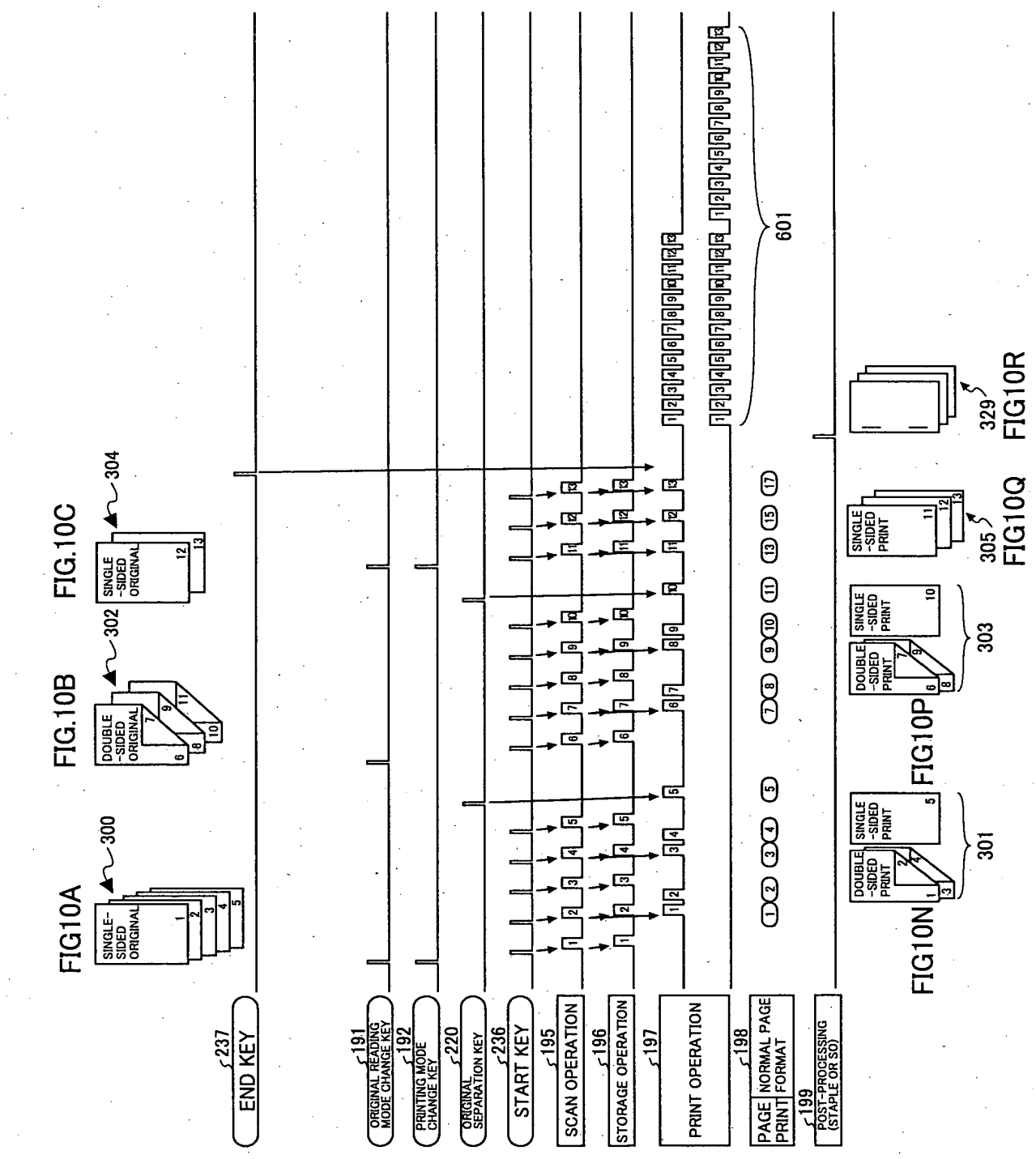
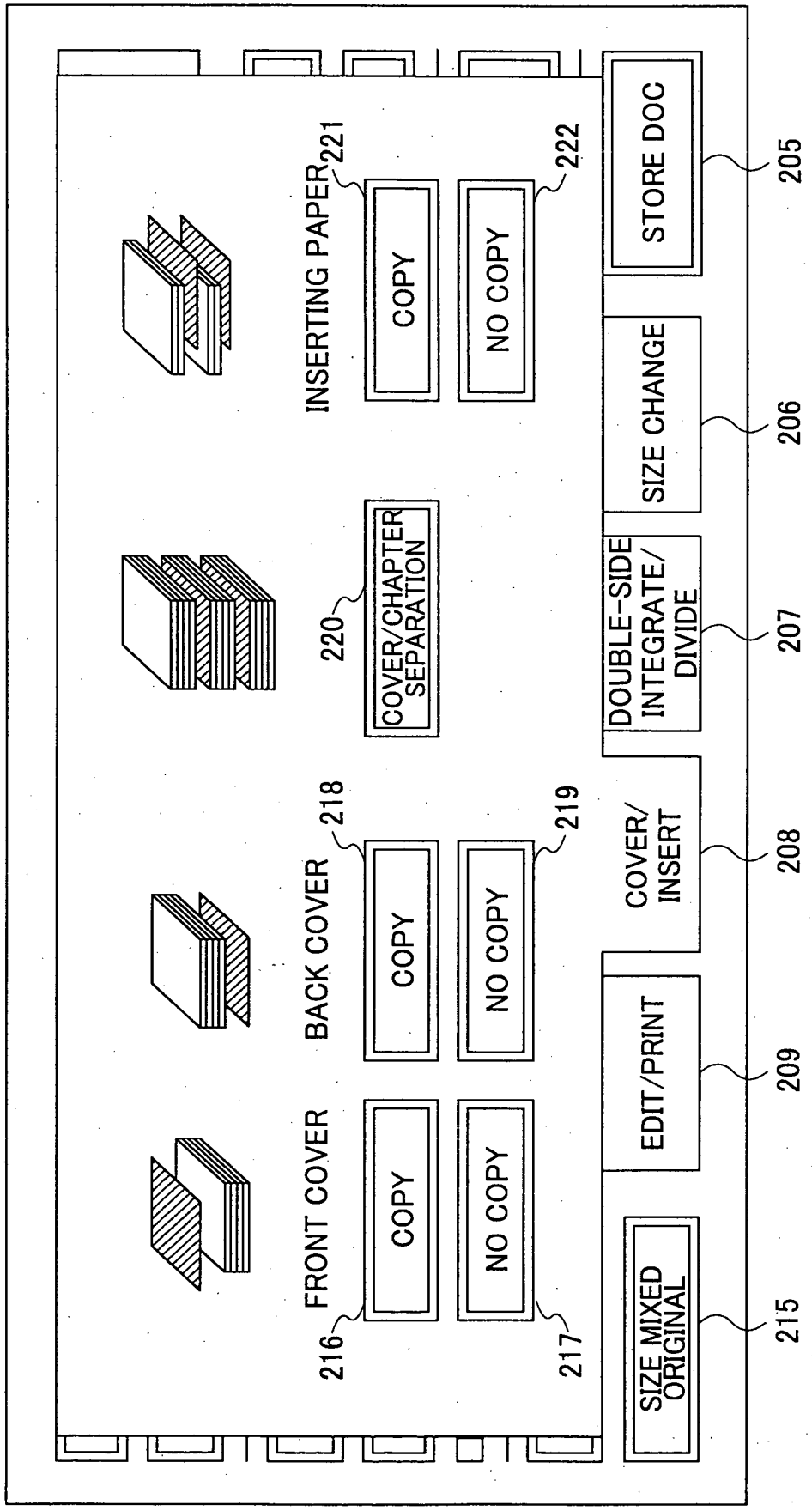


FIG10A
FIG.10B
FIG.10C
300
302
304
SINGLE-SIDED ORIGINAL
DOUBLE-SIDED ORIGINAL
SINGLE-SIDED ORIGINAL
FIG10D
237
END KEY
FIG10E
191
ORIGINAL READING MODE CHANGE KEY
FIG10F
192
PRINTING MODE CHANGE KEY
FIG10G
220
ORIGINAL SEPARATION KEY
FIG10H
236
START KEY
FIG10I
195
SCAN OPERATION
FIG10J
196
STORAGE OPERATION
FIG10K
197
PRINT OPERATION
FIG10L
198
PAGE PRINT
NORMAL PAGE FORMAT
FIG10M
199
POST-PROCESSING (STAPLE OR SO)
601
FIG10N
DOUBLE-SIDED PRINT
SINGLE-SIDED PRINT
301
FIG10P
303
FIG10Q
305
FIG10R
329

FIG.11


70
STORE DOC
205
SIZE CHANGE
206
DOUBLE-SIDE INTEGRATE/ DIVIDE
207
COVER/ INSERT
208
EDIT/PRINT
209
SIZE MIXED ORIGINAL
215
INSERTING PAPER
221
COPY
NO COPY
222
220
COVER/CHAPTER SEPARATION
BACK COVER
218
COPY
NO COPY
219
FRONT COVER
216
COPY
NO COPY
217

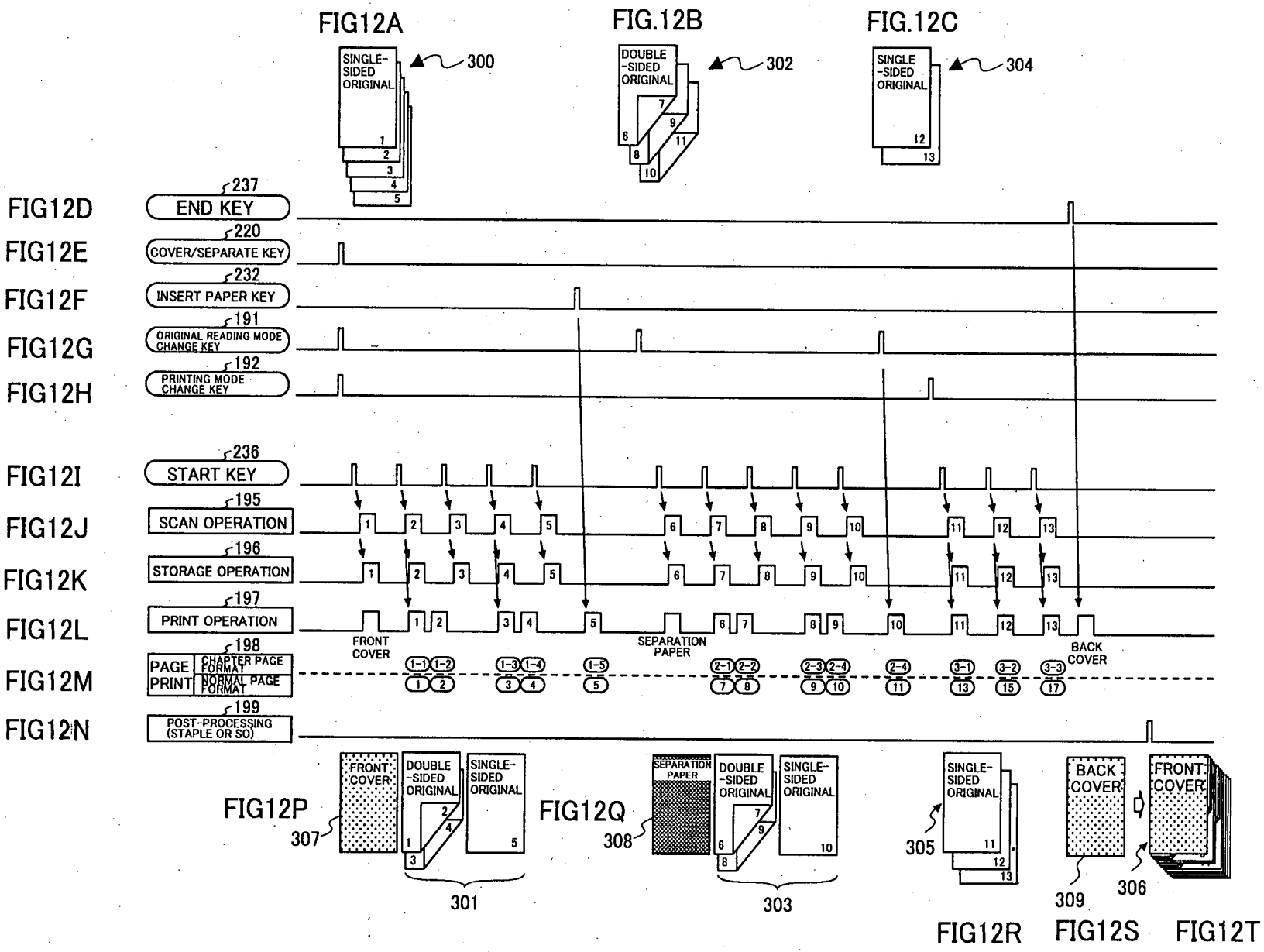


FIG12A
SINGLE-SIDED ORIGINAL
300
FIG.12B
DOUBLE-SIDED ORIGINAL
302
FIG.12C
SINGLE-SIDED ORIGINAL
304
FIG12D
237
END KEY
FIG12E
220
COVER/SEPARATE KEY
FIG12F
232
INSERT PAPER KEY
FIG12G
191
ORIGINAL READING MODE CHANGE KEY
FIG12H
192
PRINTING MODE CHANGE KEY
FIG12I
236
START KEY
FIG12J
195
SCAN OPERATION
FIG12K
196
STORAGE OPERATION
FIG12L
197
PRINT OPERATION
FIG12M
198
PAGE PRINT
CHAPTER PAGE FORMAT
NORMAL PAGE FORMAT
FRONT COVER
SEPARATION PAPER
BACK COVER
FIG12N
199
POST-PROCESSING (STAPLE OR SO)
FIG12P
307
FRONT COVER
DOUBLE-SIDED ORIGINAL
SINGLE-SIDED ORIGINAL
301
FIG12Q
308
SEPARATION PAPER
DOUBLE-SIDED ORIGINAL
SINGLE-SIDED ORIGINAL
303
305
SINGLE-SIDED ORIGINAL
309
BACK COVER
306
FRONT COVER
FIG12R
FIG12S
FIG12T

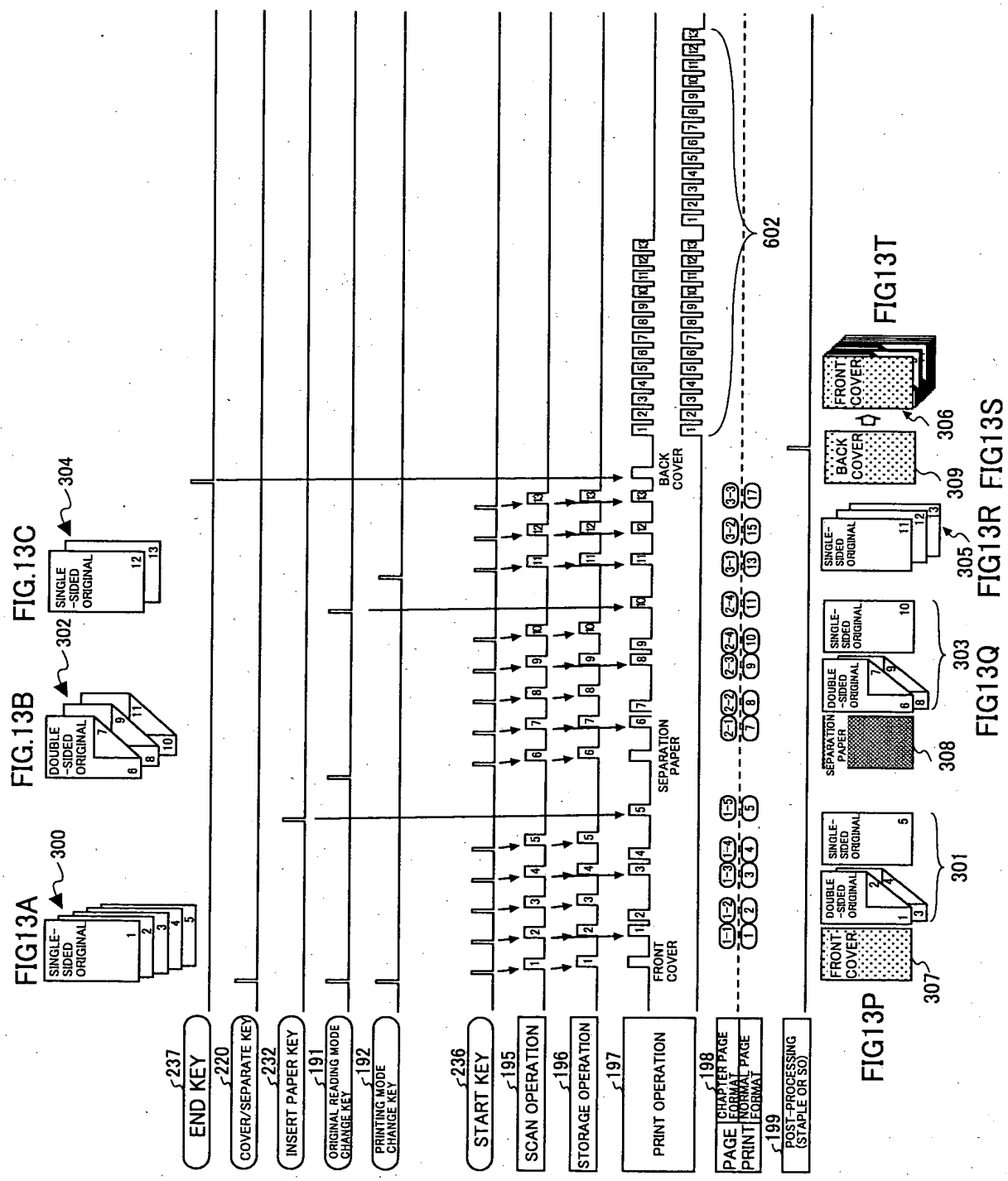


FIG13A
FIG.13B
FIG.13C
300
302
304
SINGLE-SIDED ORIGINAL
DOUBLE-SIDED ORIGINAL
SINGLE-SIDED ORIGINAL
FIG13D
END KEY
237
FIG13E
COVER/SEPARATE KEY
220
FIG13F
INSERT PAPER KEY
232
FIG13G
ORIGINAL READING MODE CHANGE KEY
191
FIG13H
PRINTING MODE CHANGE KEY
192
FIG13I
START KEY
236
FIG13J
SCAN OPERATION
195
FIG13K
STORAGE OPERATION
196
FIG13L
PRINT OPERATION
197
FRONT COVER
SEPARATION PAPER
BACK COVER
602
FIG13M
PAGE PRINT
CHAPTER PAGE FORMAT
NORMAL PAGE FORMAT
198
FIG13N
POST-PROCESSING (STAPLE OR SO)
199
FIG13P
FRONT COVER
DOUBLE-SIDED ORIGINAL
SINGLE-SIDED ORIGINAL
307
301
FIG13Q
SEPARATION PAPER
DOUBLE-SIDED ORIGINAL
SINGLE-SIDED ORIGINAL
308
303
FIG13R
SINGLE-SIDED ORIGINAL
BACK COVER
305
309
FIG13S
FRONT COVER
306
FIG13T

FIG.14A

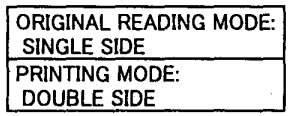


FIG.14B

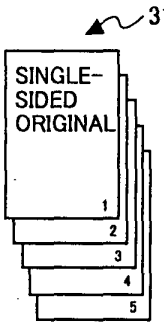


FIG.14C

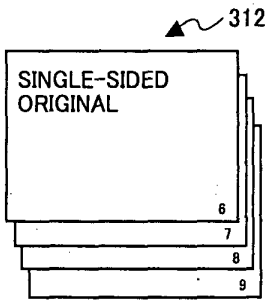


FIG.14D

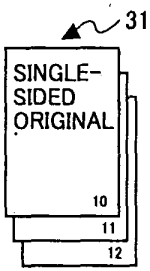
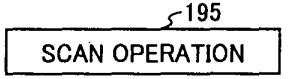


FIG.14E

FIG.14F



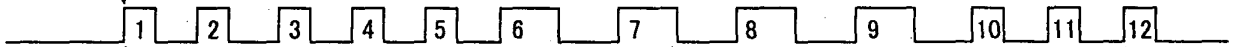
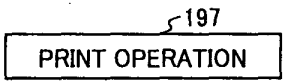
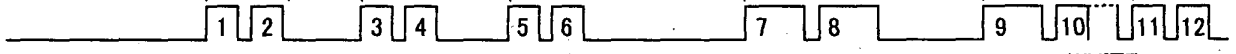


FIG.14G

FIG.14H





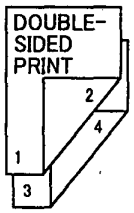


FIG.14I

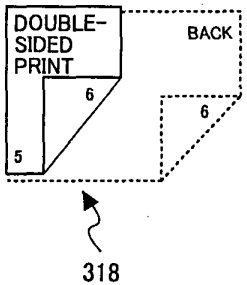


FIG.14J

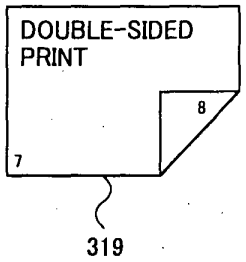


FIG.14K

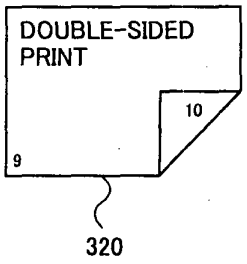


FIG.14L

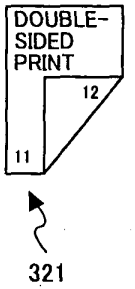


FIG.14M

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DOCKET # 243087US2
INV: Masato TERAO, et al.
SHEET 14 OF 26

FIG.15A

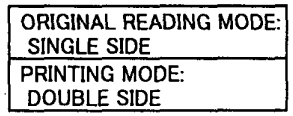


FIG.15B

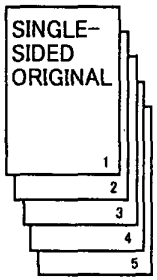


FIG.15C

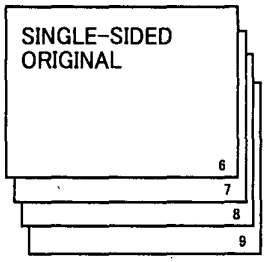
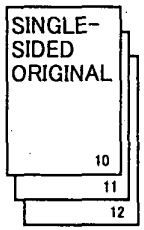


FIG.15D



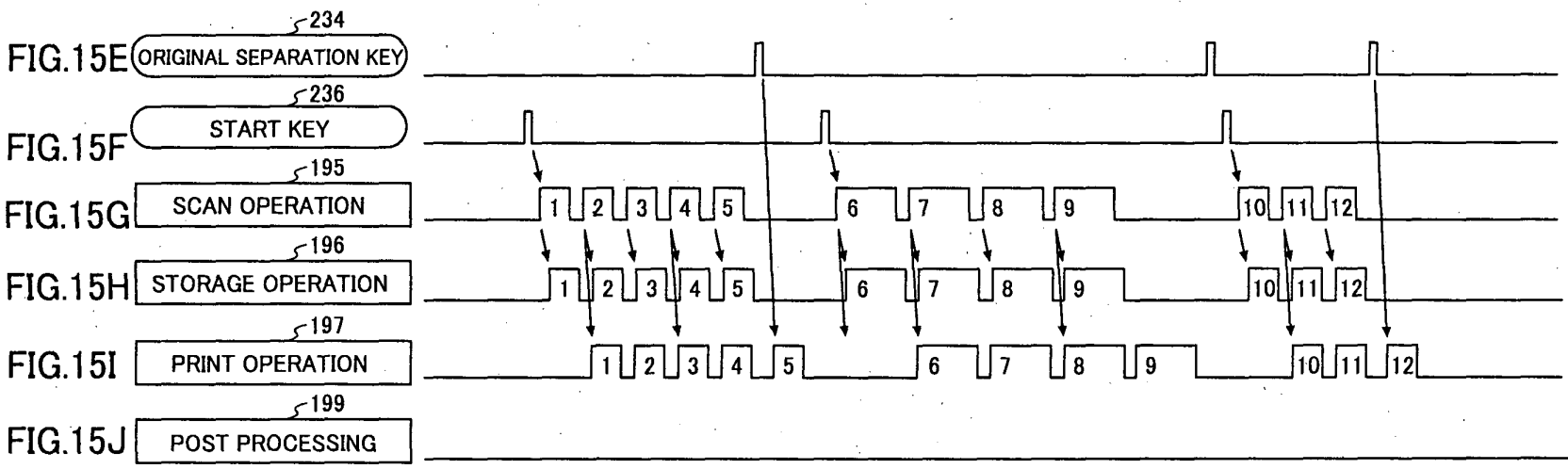


FIG.15E

FIG.15F

FIG.15G

FIG.15H

FIG.15I

FIG.15J

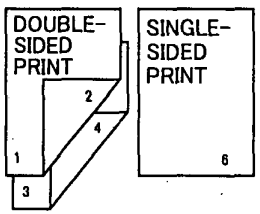


FIG.15K

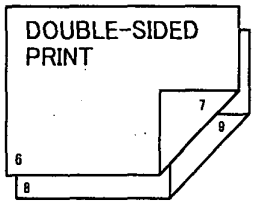


FIG.15L

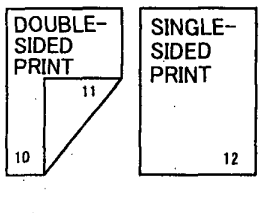


FIG.15M

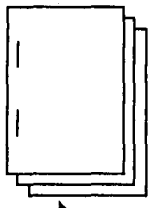


FIG.15N

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FIG.16A

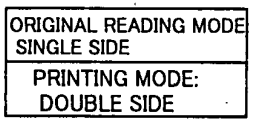


FIG.16B

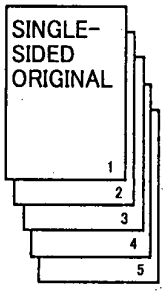


FIG.16C

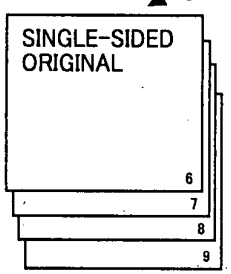


FIG.16D

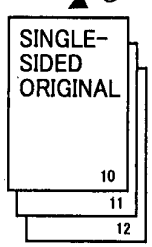


FIG.16E

FIG.16F

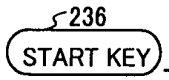
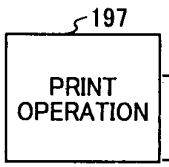


FIG.16G

FIG.16H

FIG.16I



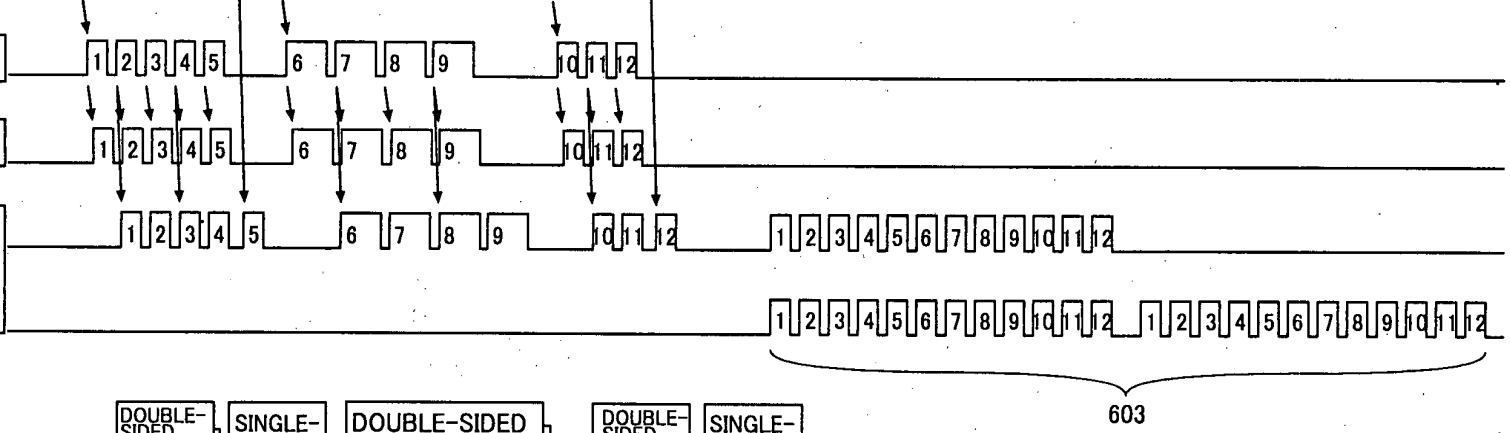


FIG.16J

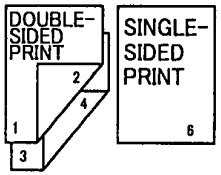


FIG.16K

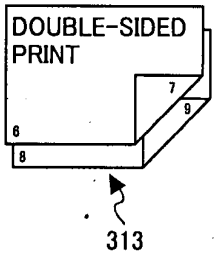


FIG.16L

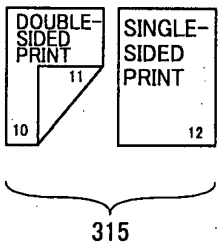


FIG.17A

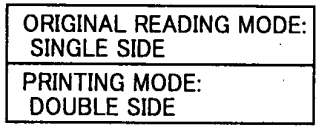


FIG.17B

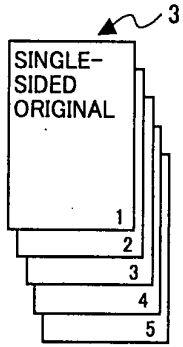


FIG.17C

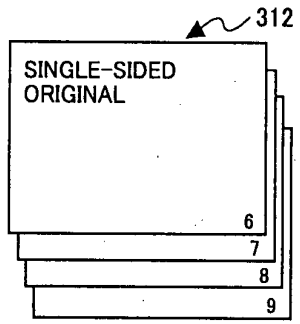


FIG.17D

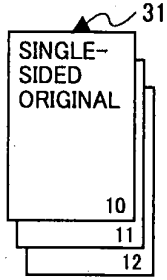


FIG.17E

FIG.17F

FIG.17G

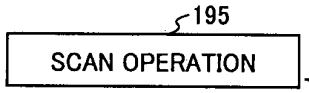


FIG.17H

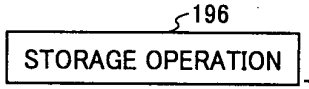
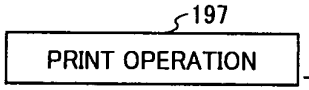


FIG.17I



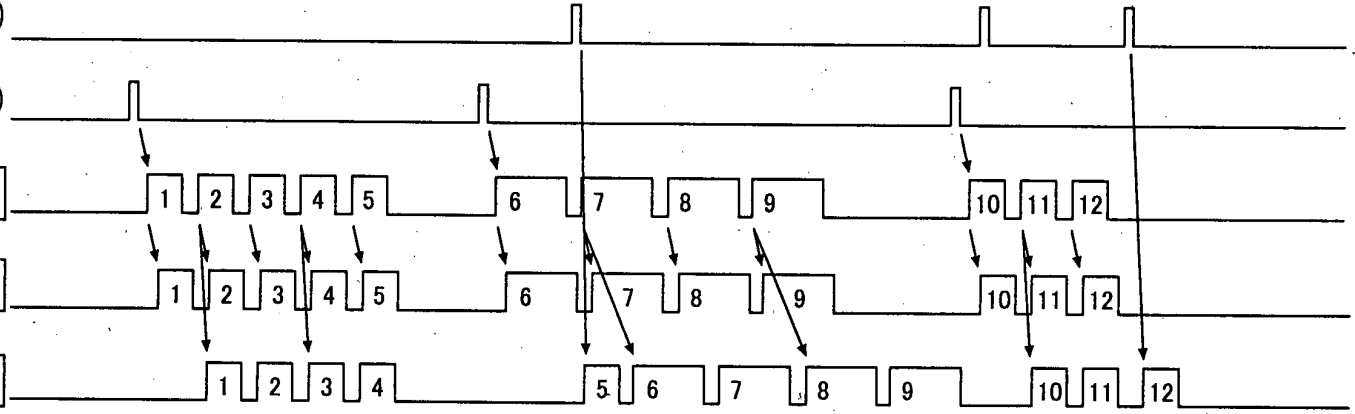


FIG.17J

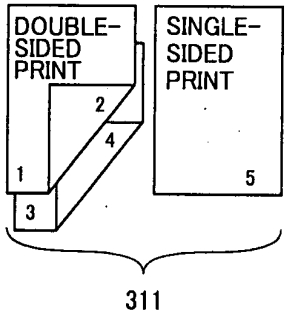


FIG.17K

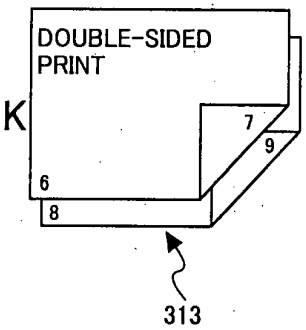
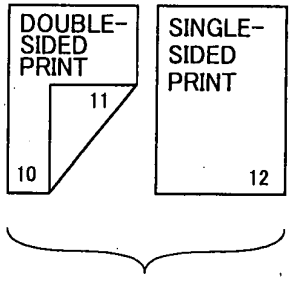


FIG.17L



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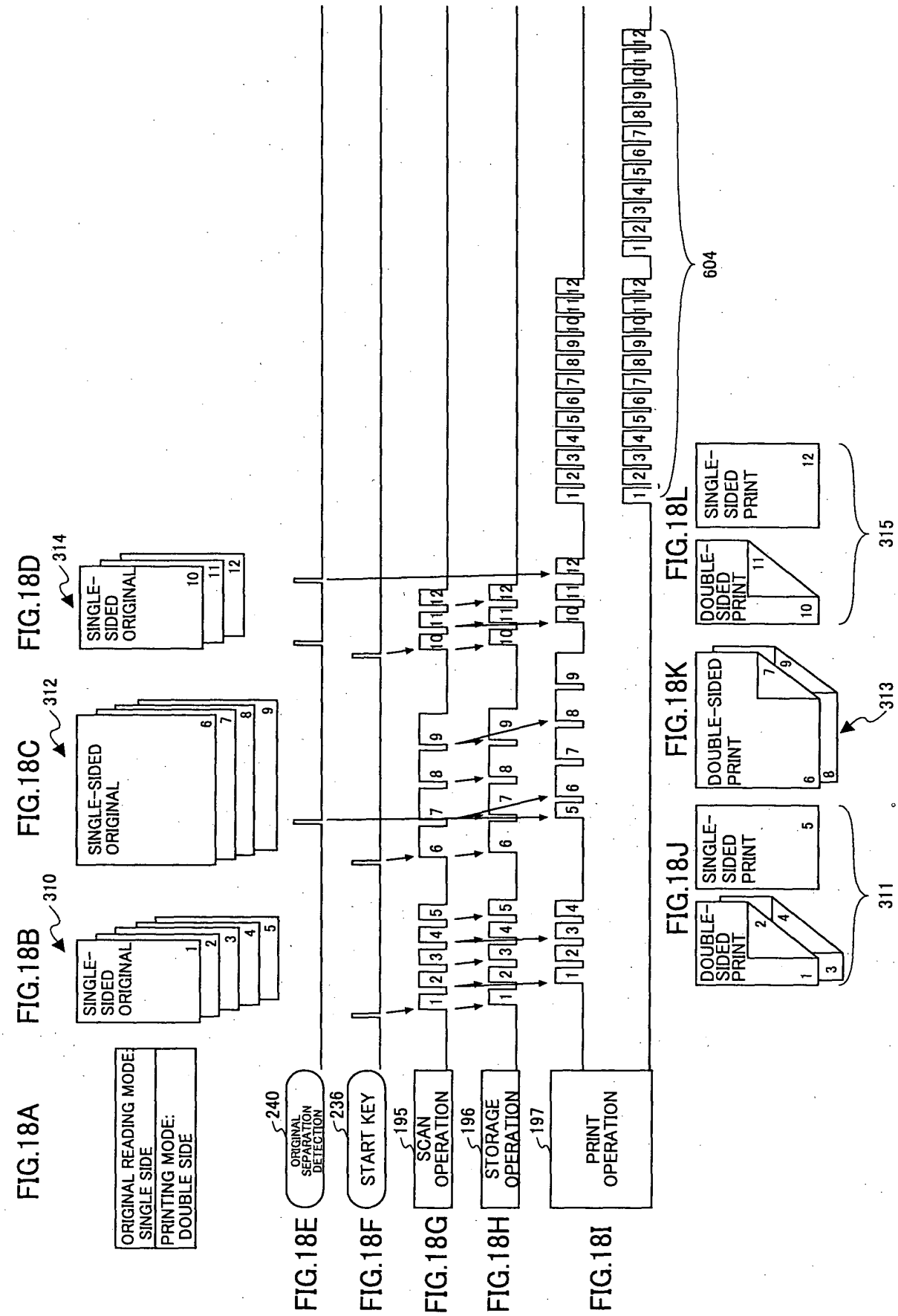


FIG.18A
ORIGINAL READING MODE: SINGLE SIDE
PRINTING MODE: DOUBLE SIDE
FIG.18B
310
SINGLE-SIDED ORIGINAL
FIG.18C
312
SINGLE-SIDED ORIGINAL
FIG.18D
314
SINGLE-SIDED ORIGINAL
FIG.18E
240
ORIGINAL SEPARATION DETECTION
FIG.18F
236
START KEY
FIG.18G
195
SCAN OPERATION
FIG.18H
196
STORAGE OPERATION
FIG.18I
197
PRINT OPERATION
FIG.18J
DOUBLE-SIDED PRINT
SINGLE-SIDED PRINT
311
FIG.18K
DOUBLE-SIDED PRINT
313
FIG.18L
DOUBLE-SIDED PRINT
SINGLE-SIDED PRINT
315
604

FIG.19A

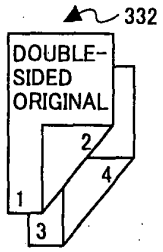


FIG.19B

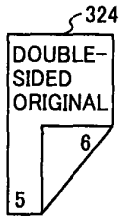


FIG.19C

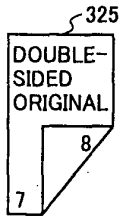


FIG.19D

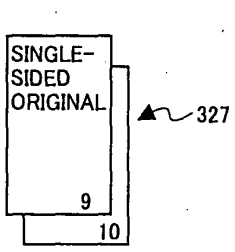


FIG.19E

FIG.19F

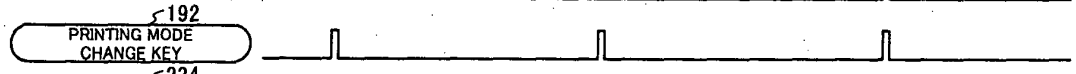


FIG.19G

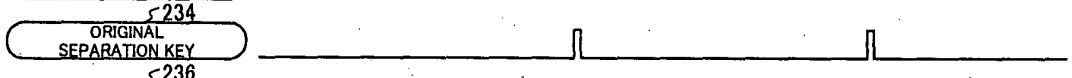


FIG.19H

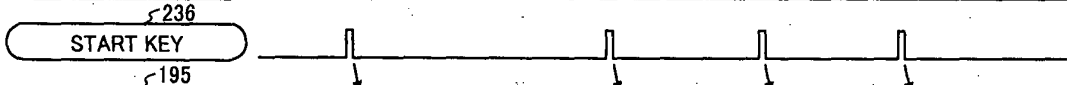


FIG.19I

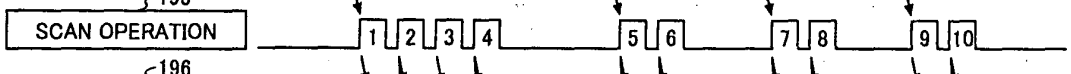


FIG.19J

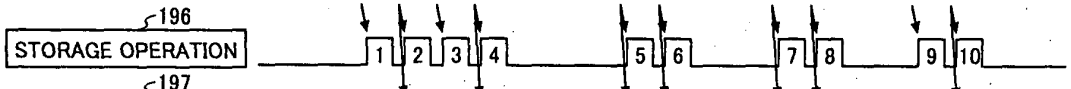


FIG.19K

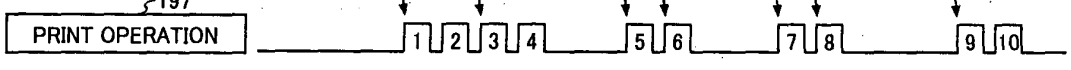


FIG.19L

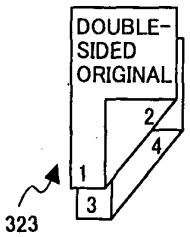


FIG.19M

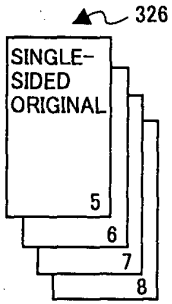
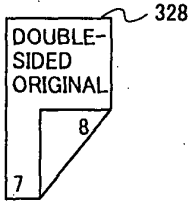


FIG.19N



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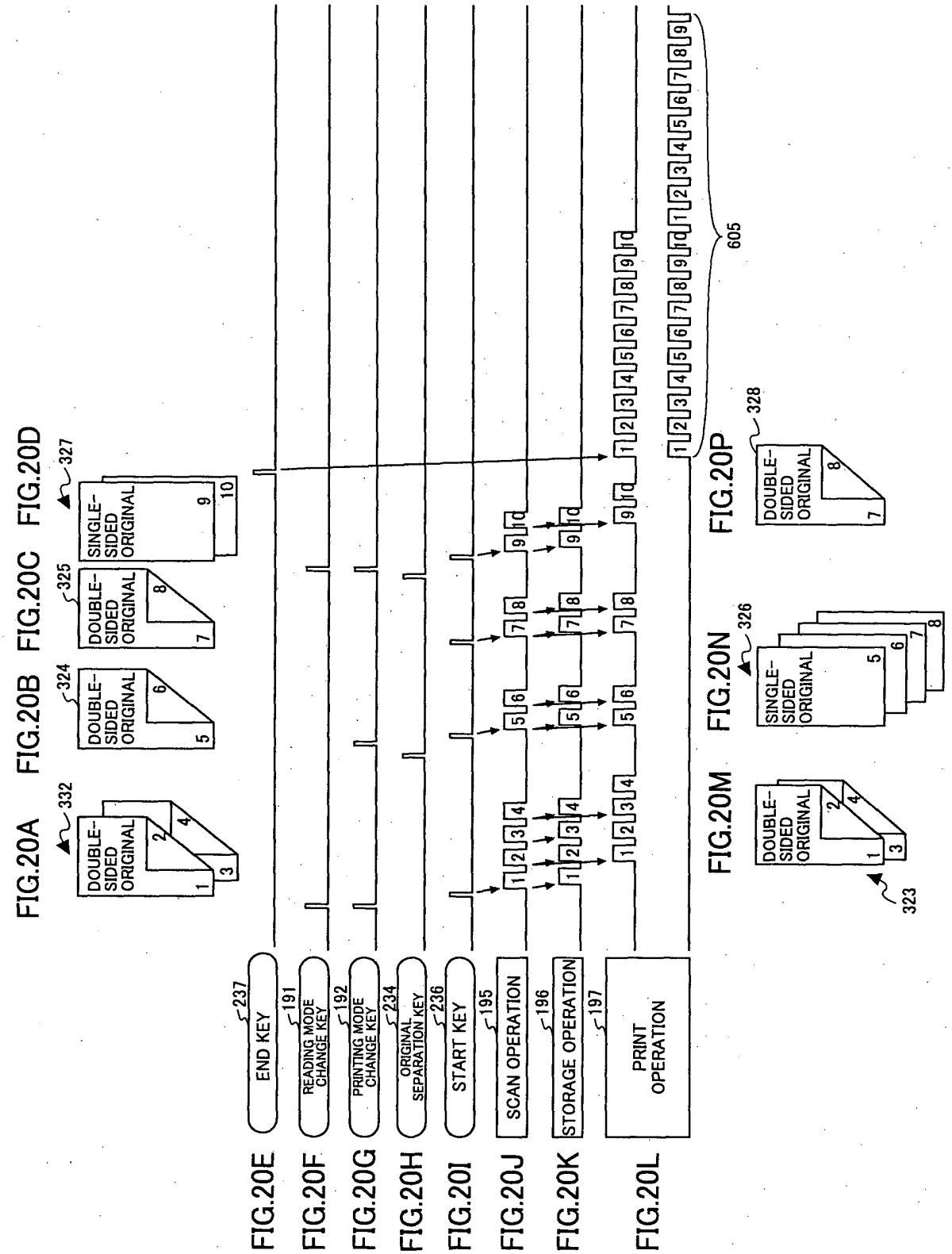
FIG.20A
FIG.20B
FIG.20C
FIG.20D
FIG.20E
FIG.20F
FIG.20G
FIG.20H
FIG.20I
FIG.20J
FIG.20K
FIG.20L
FIG.20M
FIG.20N
FIG.20P
DOUBLE-SIDED ORIGINAL
SINGLE-SIDED ORIGINAL
END KEY
READING MODE CHANGE KEY
PRINTING MODE CHANGE KEY
ORIGINAL SEPARATION KEY
START KEY
SCAN OPERATION
STORAGE OPERATION
PRINT OPERATION
323
324
325
326
327
328
332
605

FIG.21

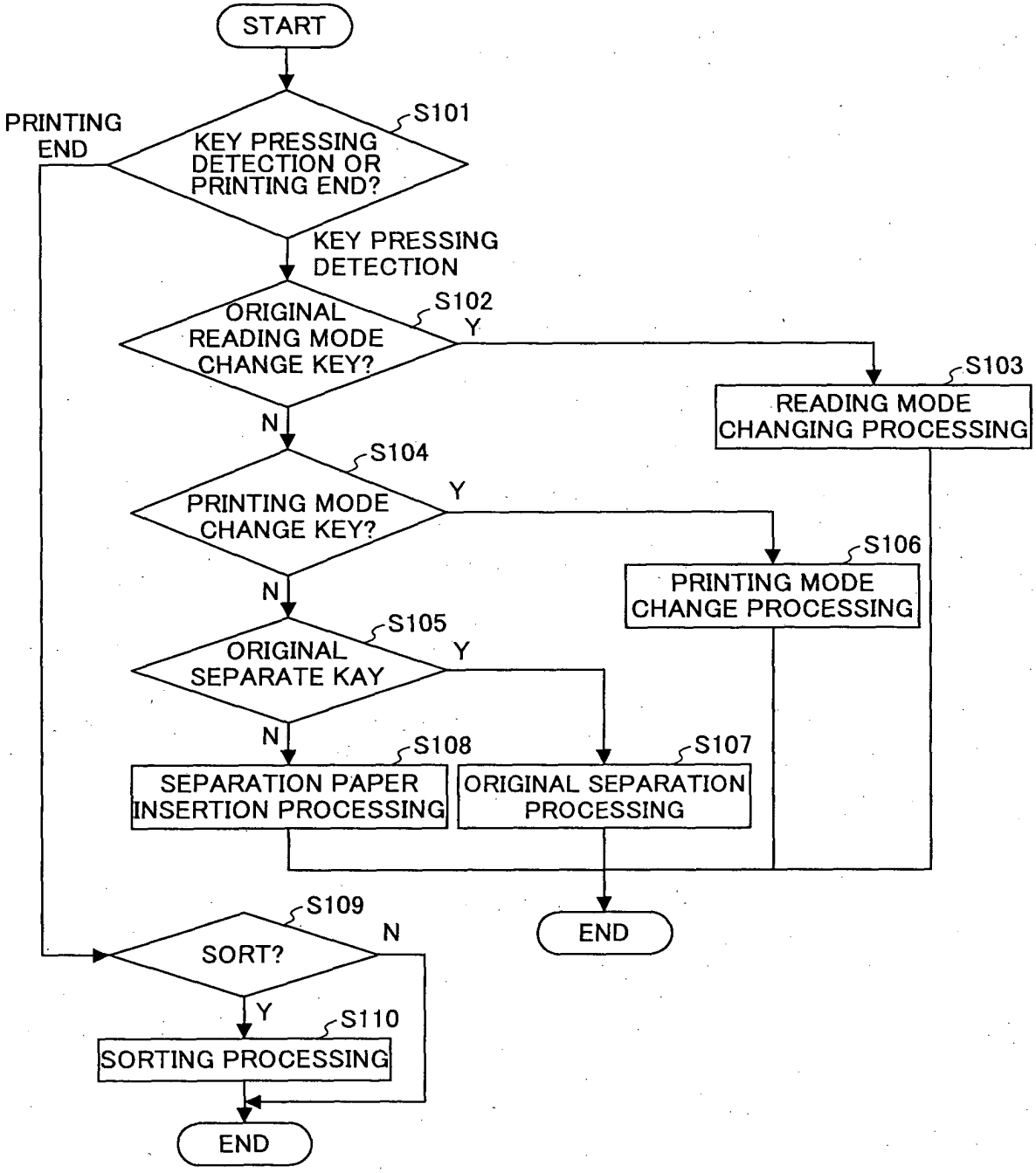
START
S101
KEY PRESSING DETECTION OR PRINTING END?
PRINTING END
KEY PRESSING DETECTION
S102
ORIGINAL READING MODE CHANGE KEY?
Y
N
S103
READING MODE CHANGING PROCESSING
S104
PRINTING MODE CHANGE KEY?
Y
N
S106
PRINTING MODE CHANGE PROCESSING
S105
ORIGINAL SEPARATE KAY
Y
N
S108
SEPARATION PAPER INSERTION PROCESSING
S107
ORIGINAL SEPARATION PROCESSING
END
S109
SORT?
N
Y
S110
SORTING PROCESSING
END

FIG.22

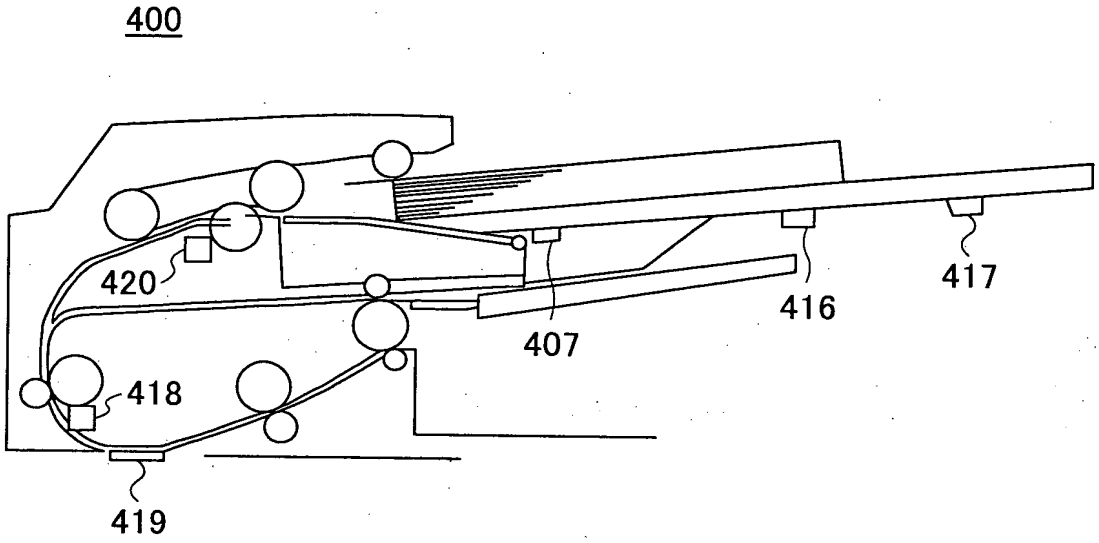

FIG.23

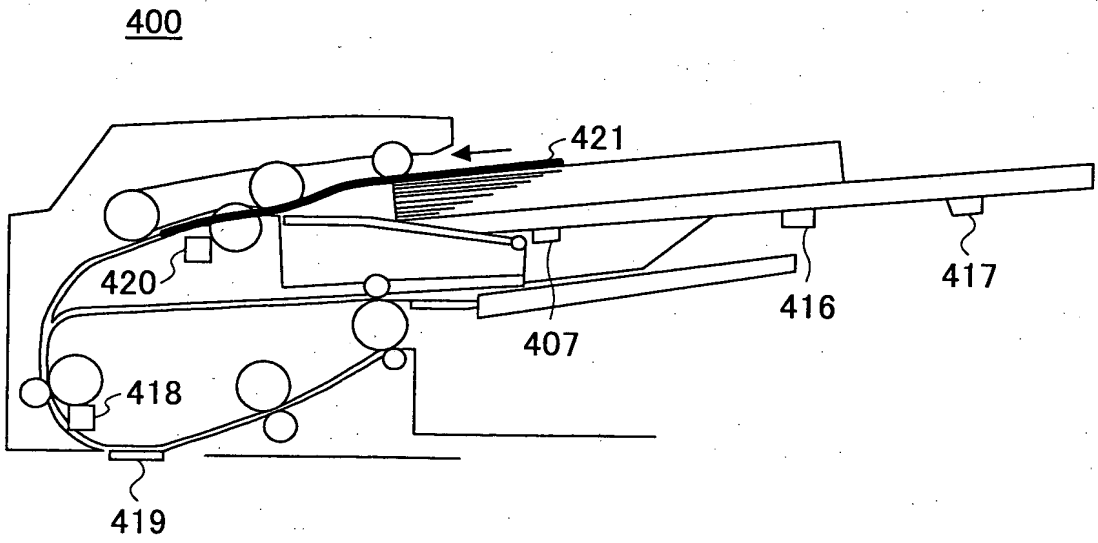

FIG.24

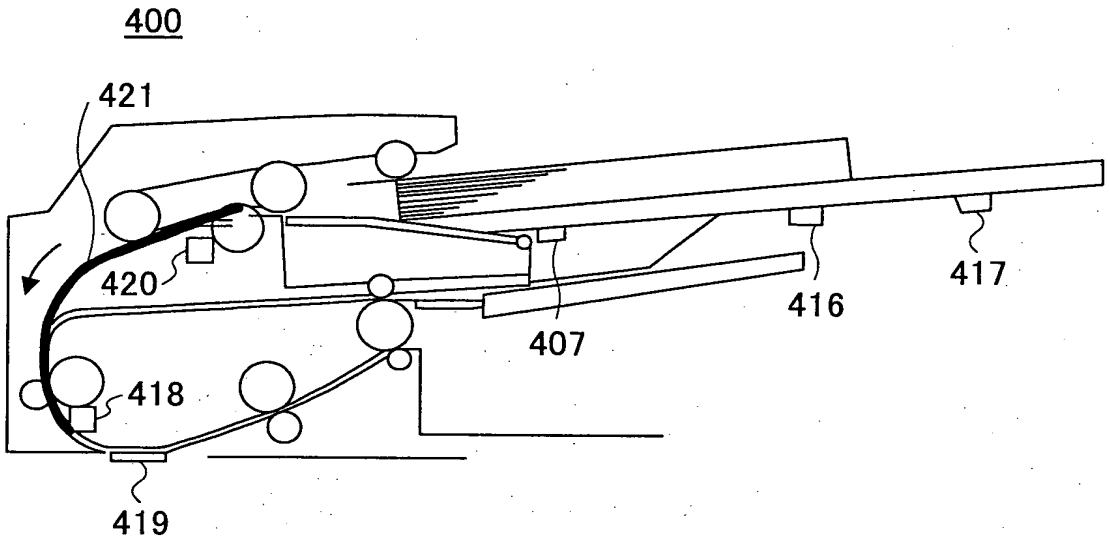
400
421
420
418
419
407
416
417

FIG.25

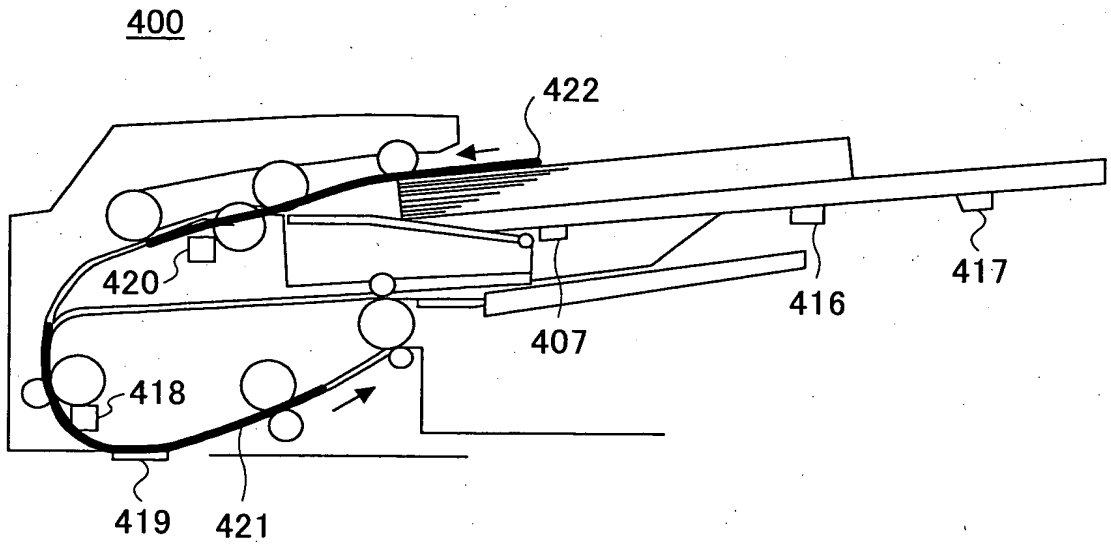
400
422
420
418
419
421
407
416
417

FIG.26

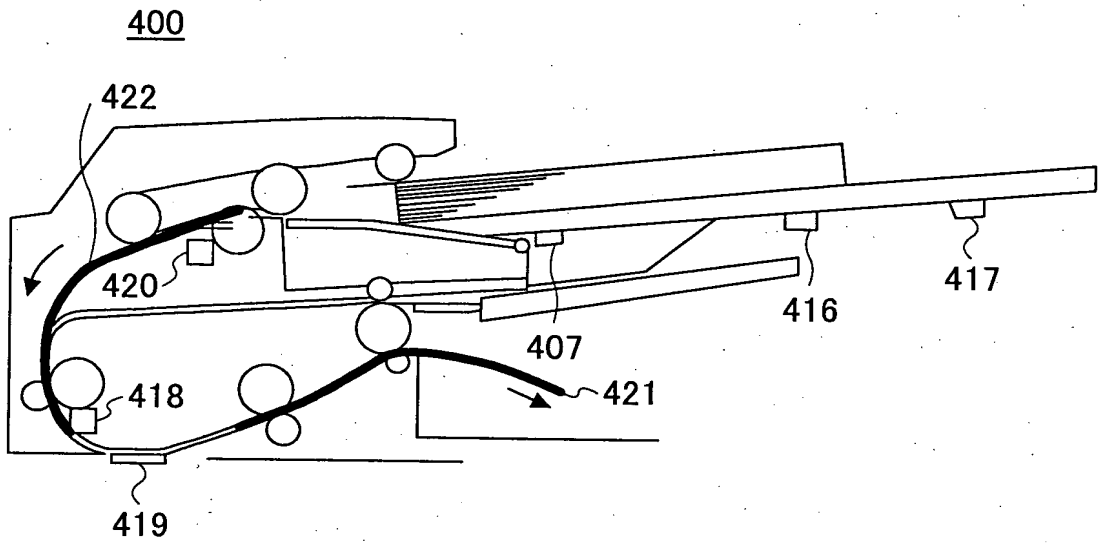
400
422
420
407
416
417
418
421
419

FIG.27

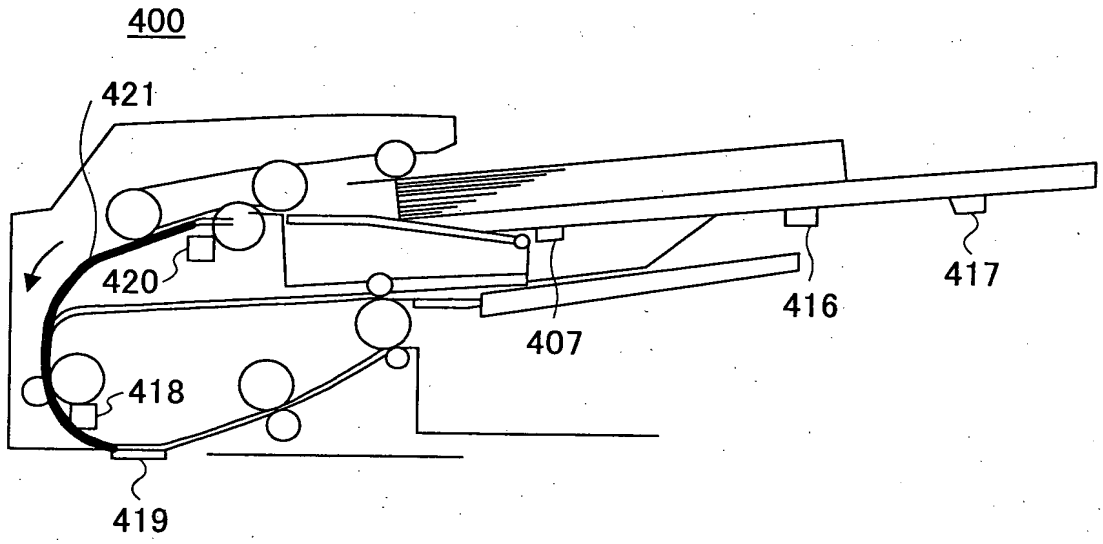
400
421
420
407
416
417
418
419

FIG.28

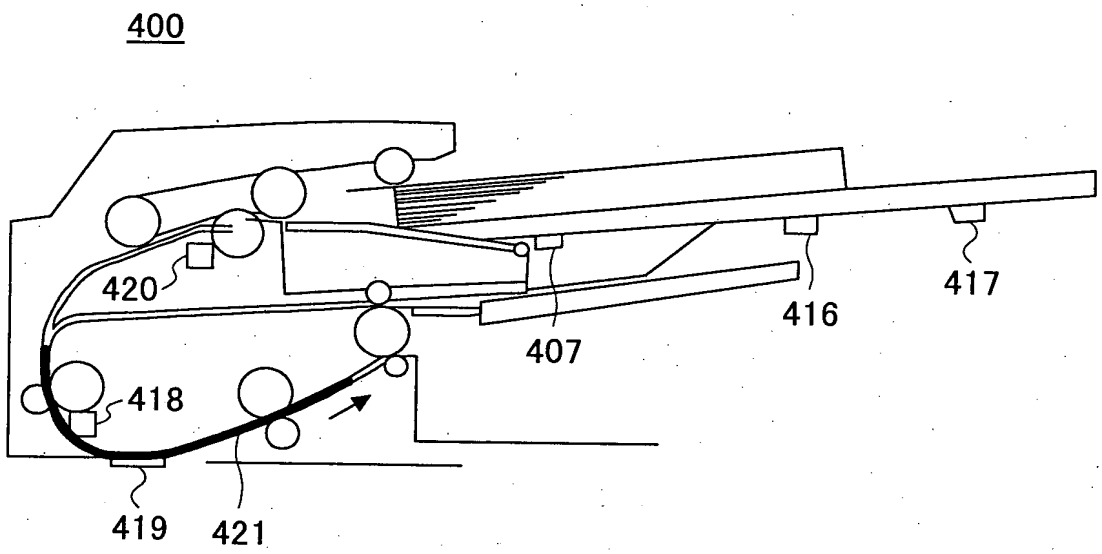

FIG.29

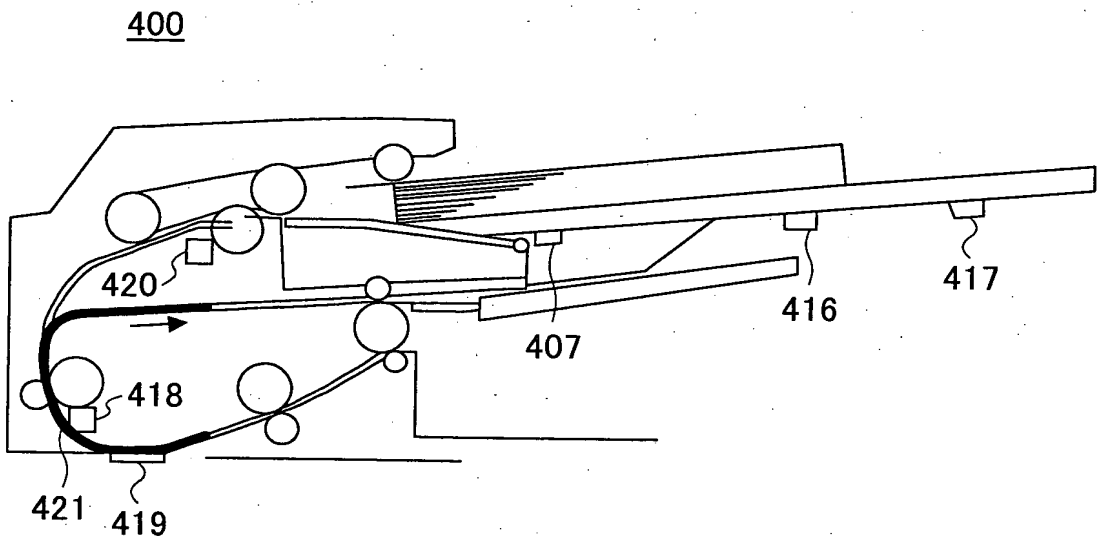

FIG.30

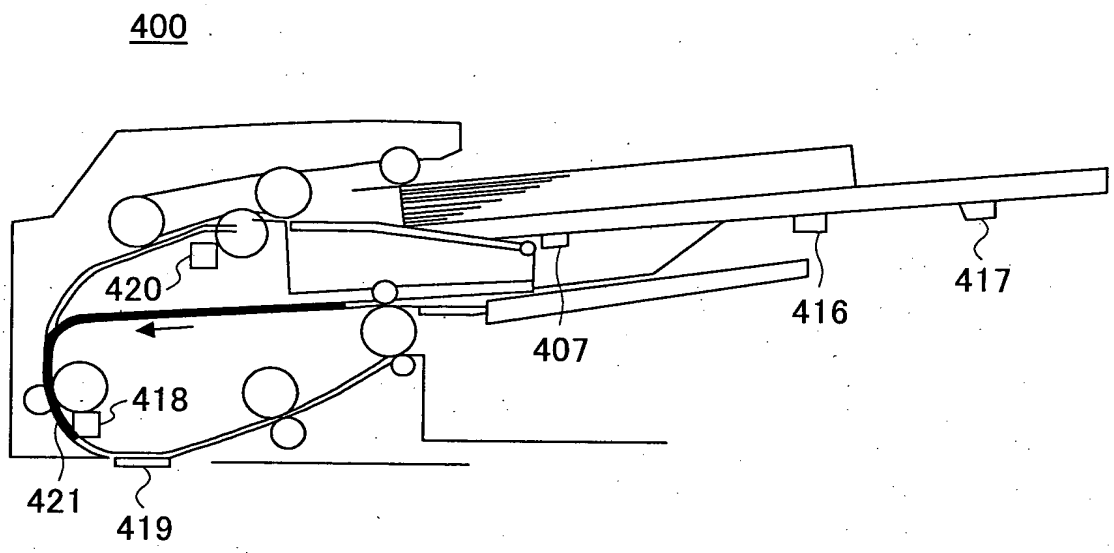
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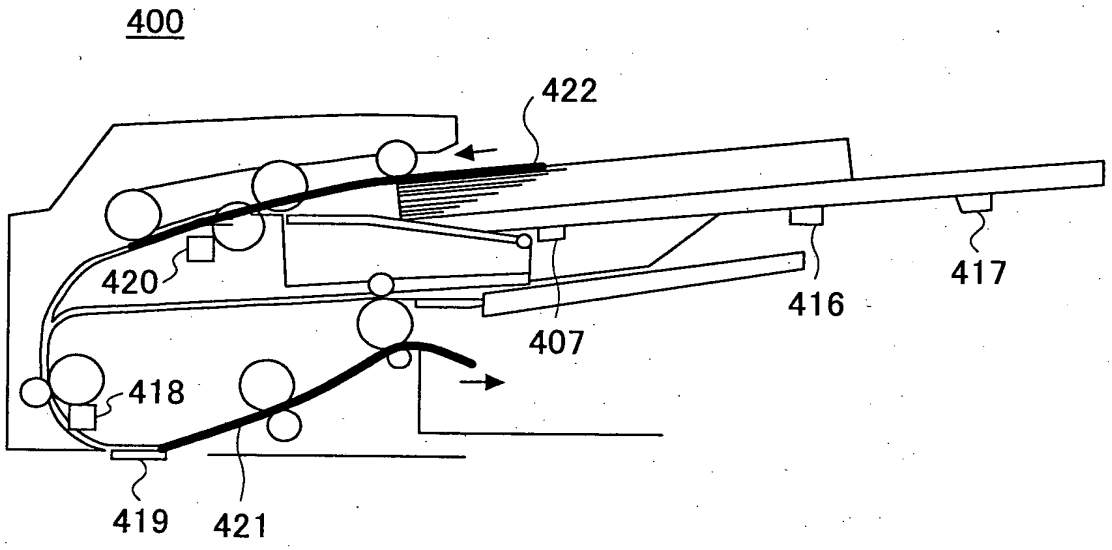
FIG.31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